

ASSESSMENT OF LIFE QUALITY IN PATIENTS WITH DENTITION DEFECTS AND PERIODONTAL DISEASES BEFORE AND AFTER PROSTHESIS AND IMPLANTATION OF TEETH

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ANNOTATION

The aim of the study was to evaluate the quality of life of patients with dentition defects, not substituted by orthopedic constructions, accompanied by periodontal diseases on the basis of comprehensive analysis and to determine the most appropriate method of treatment of this pathology. The study included surveys of patients with dentition defects and periodontal diseases with the help of dental Quality of Life Questionnaire Oral Health Impact Profile-14 (OHIP-14) before and after treatment. Quality of life of patients after implantation of teeth became equivalent to healthy individuals defining the benefits of this treatment before the prosthesis with fixed prosthetic constructions. The use of dental questionnaires of quality of life, such as, OHIP-14 in the treatment of oral diseases helped optimize the approach to the choice of therapy and to predict the advantages of treatment and patient attitude to them.

Keywords: *implantation of teeth, fixed orthopedic constructions, life quality.*

INTRODUCTION

Acquired pathologies of the dentition are found in almost 100% of the population of the Russian Federation. The most common pathologies include defects in the dentition [1] and periodontal disease, which are not only the cause of a deterioration in the quality of life and a decrease in the patient's ability to work, but also the cause of a number of somatic diseases and their unfavorable course. Both dentition defects and periodontal diseases are difficult to treat, lead to a significant decrease in the functionality of the dentition, they are characterized by a long period of rehabilitation. Unfortunately, in practice, the isolated course of these pathologies is quite rare, as a rule, they proceed in combination, mutually burdening each other. There are many approaches to the treatment of these diseases of the oral cavity, but there is still no consensus on the most appropriate treatment tactics, the results of which would suit both the doctor and the patient. It is often difficult to predict the success of treatment, and the definition of the quality of life, which has recently become widespread in medicine, can help the dentist. Quality of life is an integral characteristic of a patient's physical, psychological, emotional and social functioning, based on his subjective perception [2–4]. To date, it has been proven that the parameters of the patient's quality of life have independent prognostic significance and are more accurate factors of the patient's condition during treatment than the general somatic status [5].

In this work, we studied various methods of replacing dentition defects in concomitant periodontal diseases, assessed their results both in terms of improving the dental status and in terms of improving the quality of life of patients.

METHODS

The study was carried out on the basis of the 3rd Clinical Hospital. S.V. Mirovortsev at the Department of Therapeutic Dentistry and the Department of Prosthetic Dentistry, Saratov State Medical University named after I.I. IN AND. Razumovsky, as well as in the private dental clinic "Dental-Lux". We examined 45 patients with dentition defects, not replaced by orthopedic structures (15 men and 30 women),

aged 18 to 45 years (the average age of patients was 40 years). The examination was carried out twice: before the treatment and after it. All patients, depending on the method of replacing dentition defects, were divided into 2 groups: 23 patients underwent prosthetics using fixed orthopedic structures, the remaining 22 underwent dental implantation; all patients also received conservative and, if necessary, surgical treatment of periodontal diseases. The study included examination of patients, determination of dental indices (KPU, RMA, GI, PI), questioning using a specially designed questionnaire, including 16 questions related to gender, age, education, income, career, bad habits, frequency of visits to the dentist and related diseases. Also, the quality of life of patients was determined using the OHIP-14 questionnaire [6], which includes 14 questions that allow assessing the impact of the oral cavity on the quality of life, according to the following criteria: daily life, chewing food, ability to communicate. There were 5 answer options, which range from "very often" to "never" and are rated from 5 to 1 points, respectively [7]. The quality of life of the patients was determined prior to treatment. Also, a questionnaire was conducted using the OHIP-14 questionnaire after treatment.

Statistical data processing was carried out using Microsoft Office 2003 and Statistica 6.0 software. Statistical analysis of the factual material was carried out by parametric methods, when comparing independent samples, Student's t-test was used. Results are presented as mean with standard error ($X \pm m$). The critical level of significance when testing statistical hypotheses was taken less than 0.05.

RESULTS

In a survey conducted before treatment, patients of the first and second groups complained only about the presence of defects in the dentition and the associated difficulties in communication and eating. Whereas when examining the oral cavity in all patients, in addition to defects in the dentition, inflammation, swelling of the gingival papillae, hyperemia of the gums, severe bleeding were noted. The values of the PMA index of the examined patients averaged $41.4 \pm 1.3\%$, PI - 3.56 ± 0.07 , the teeth had 1–2 degrees of mobility. All patients had supragingival and subgingival dental deposits. The IIG indices were 1.8 ± 0.04 , which corresponded to the poor state of oral hygiene.

The analysis of questionnaires and questionnaires completed by patients before treatment showed that according to all quality of life criteria, with the exception of the ability to communicate, the quality of life of patients with periodontal diseases undergoing dental implantation was significantly worse than in patients who received prosthetics using fixed orthopedic structures.

After the treatment, most of the patients had no complaints. When examining the oral cavity, there was a decrease in gum hyperemia and swelling, a decrease in bleeding, the absence of pathological gingival pockets, and an improvement in dental indices was also observed: the PMA index values averaged $28.4 \pm 3.3\%$, PI - 1.14 ± 0.13 ... The IIG indices were 0.9 ± 0.03 , which corresponded to a good state of oral hygiene.

Analysis of OHIP-14 questionnaires showed a significant improvement in the quality of life of patients after treatment.

It should also be noted that patients who underwent replacement of dentition defects using implantation noted significantly better indicators in all quality of life criteria than patients with bridges.

DISCUSSION

Thus, this study showed that oral diseases such as defects in the dentition and periodontal disease significantly reduce the quality of life of patients, affecting both the ability to eat and communicate, and the general well-being of people, and should be considered not only as a medical a problem, but also as a social one,

therefore, great attention should be paid to their elimination and prevention of their occurrence. At the same time, it can be seen from our study that different methods of treatment have different effects on the quality of life of patients: despite the fact that prosthetics with the help of non-removable orthopedic structures significantly improves the quality of life of patients, it is significantly inferior to implantation, in which the quality of life criteria are close to those of practically healthy people. Therefore, when choosing a treatment method, it is necessary not only to proceed from the clinical picture in the oral cavity, but also to take into account many other indicators, which in the future can significantly affect the success of the treatment.

CONCLUSION

Dental implantation is the most effective way to replace dentition defects with concomitant periodontal pathology, allowing patients to lead a fulfilling life without experiencing the inconvenience associated with eating and communicating with people.

The use of quality of life questionnaires at a dental appointment allows doctors to optimize the choice of a therapy method and control the treatment process, which contributes to an increase in the effectiveness of the treatment.

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